Amendments to the Specification:

Please insert the heading -- <u>SUMMARY OF THE INVENTION</u> -- at the end of paragraph [0003] and before paragraph [0004].

Please replace paragraph [0006] on page 3 with the following rewritten paragraph:

By choosing adjacent sensors with the same web thicknesses but different active areas, there is another unanticipated advantage. Both the thermal zero shift and the thermal sensitivity shift are controlled by the impurity concentrations of the ~~P=~~ <u>P+</u> regions and by how well they match each other. Thus, the thermal properties of the two individual sensors can be more closely controlled and matched to each other resulting in a better overall combined absolute-differential transducer.

Please replace paragraph [0024] beginning on page 5 with the following rewritten paragraph:

In Figure ~~1~~ <u>1A</u> there is shown a perspective view of the sensor transducer chip 12A used in the present invention. The chip shown in Figure 1A is that shown in Figure 1 of the '771 patent. The chip comprises an individual semiconductor pressure sensor 44A, which is hermetically sealed by a cover 72A. In Figure 1B there is shown a perspective view of another sensor transducer chip 12B also used in the present invention. The chip also comprises an individual semiconductor pressure sensor 44B, which is sealed by a cover 72B containing an additional through-hole 19B to be used for differential measurement. The numerals 85A and 85B refer to the active region of the respective chips or that region which defects upon an application of a force to the chip. Figure 1C depicts a single chip or wafer 12C having located

Cont A2

thereon on the sensor transducer chip of Figure 1A adjacent the sensor transducer chip of Figure 1B. These are provided on a common chip or wafer as shown in Figure 1C. There is shown the chips associated with a pressure sensor module or wafer 144 having active region or area 85B for the left sensor and an active region 85A for the right sensor. The left sensor being the differential sensor and the right being the absolute sensor.

Please replace paragraph [0025] beginning on page 6 with the following rewritten paragraph:

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A top plan view of the semiconductor sensor 44, used in fabricating both the absolute and differential sensor structures, of ~~Figure 1~~ Figures 1A and 1B is depicted without the covers 72A or 72B in Figure 2. The reference numeral 44 is employed as for sensor 44A and 44B of Figure 1A and 1B. The pressure sensor 44 is approximately 100 mils by 100 mils and is fabricated from two or more semiconductor wafers of silicon, or any other suitable semiconductor wafer material. The sensor or transducer 44 is fabricated using conventional wafer processing techniques which enable a number of dielectrically isolated piezoresistive sensor elements such as 46, composed of highly doped (P+) silicon to be formed on ~~semiconductor material using~~ dielectric films of ~~SiO2~~ SiO_2 or the like. It is understood that a number of such sensors can be made at the same time on a large substrate (Figure 1C). By fabricating both sensors at the same time on the same wafer and by choosing adjacent sensors with the same web thickness but different active areas, there is another unanticipated advantage. Both the thermal zero shift and the thermal sensitivity shift are controlled by the impurity concentrations of the ~~P=~~ P+ regions and by how well they match each other. Thus, the thermal properties of the two individual

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sensors can be more closely controlled and matched to each other incurring a better overall combined absolute-differential transducer.

Please replace paragraph [0031] beginning on page 8 with the following rewritten paragraph:

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As is understood, subsequent to the diffusion, the surface of the sacrificial wafer 60 is treated with a conductivity-selective etch which does not attach the P+ areas 46, 48, 52, 54 leaving them raised from the surface. In Figure 4B, the sacrificial wafer 60 is then fusion-bonded to an N-type "diaphragm" wafer 62 which has been previously treated to obtain a dielectric layer 64 of preferable 5000 to 15,000 Angstroms (Å) of silicon dioxide thereon. Although the dielectric layer 64 is preferably silicon dioxide, other dielectric layers can be used as well. The dielectric layer 64 operates to dielectrically "isolate" the sensor elements 46 from the diaphragm wafer ~~60~~ 62. After fusion bonding, the N-type material of the sacrificial wafer 60 is removed using a conductivity-selective etch, leaving only the P+ sensors 46, the interconnections 52, the contact areas 48 and the raised rim 54 bonded to the diaphragm wafer 62 to produce the transducer 44 of Figure 3. The entire surface containing the P+ elements, the sensor elements, the interconnections, the contact areas and the raised rim, is oxidized or otherwise coated with an oxide layer. The oxide is then removed from the center of the contact areas, which are to be metallized using conventional techniques. The oxide layer is then removed from the rim and the rest of the contact areas leaving a thin strip of oxide of about ~~001" to 002"~~ 0.001" to 0.002" along each edge of the rim and the contact areas. Thus, an oxide layer remains on the edge of the horizontal surface of the rim and the contact areas extending along each vertical surface to the underlying oxide layer to which each of the P+ regions are bonded.

cont a4

The P+ regions of the active portion of the sensor still have an oxide layer over their entire horizontal surfaces as well along their vertical surfaces again extended to the field oxide layer to which the sensor network is bonded.

Please replace paragraph [0034] beginning on page 10 with the following rewritten paragraph:

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Figure 1C shows a composite sensor chip suitable for such application with the differential sensor B having a larger active area than that of absolute Chip A. Conversely, if the absolute value of P2-P1 is greater than P2, than a smaller active area in the differential sensor is required. The position of the sensor elements 46 with respect to the diaphragm 58 is determined by the form factor of the diaphragm 58, i.e., flat plate or the shown-bossed structure identified by numeral 66. The diaphragm wafer ~~144~~ 44 itself may be shaped using known etching techniques as is taught in U.S. Patent No. 4,236,137 to Kurtz et al. entitled, "Semiconductor Transducers Employing Flexure Frames" which issued on November 25, 1980 and is assigned to Kulite Semiconductor Products, Inc., the assignee herein, which is incorporated herein by reference.